

## CLAIMS

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is as follows:

5 1. A method of displaying predetermined objects on a web page accessed by a user, comprising:

one of displaying only those objects of said web page which said user has accessed a predetermined number of times previously, and displaying only those objects of said web page which said user has specified in advance.

10 2. The method of claim 1, further comprising:

sensing a number of times a user visits a website; and

sensing links for objects and other interactive objects on a home page of a website, accessed by said user.

15 3. The method of claim 2, further comprising:

sensing classes of objects to which the links and other interactive objects belong.

4. The method of claim 3, wherein said sensing is performed automatically.

5. The method of claim 1, further comprising:

registering, by said user, a preference for which of said objects are to be displayed, said displaying of said objects being based on said registering.

6. The method of claim 1, further comprising:

5 automatically prioritizing parts of a Web service associated with said web page that are repeatedly used by said user.

7. The method of claim 1, further comprising:

automatically deprioritizing parts of a Web service associated with said web page that are used less than said predetermined amount of times by said user.

8. The method of claim 6, further comprising:

10 splitting said web service pages each into one or more pages based upon said usage criteria specified.

9. The method of claim 7, further comprising:

splitting said web service pages each into one or more pages based upon said usage criteria specified.

15 10. The method of claim 8, wherein said splitting comprises:

splitting into pages on basis of classes with each page comprising parts of one or more classes.

11. The method of claim 9, wherein said splitting comprises:

splitting into pages on basis of classes with each page comprising parts of one or more classes.

12. The method of claim 6, wherein said prioritizing is based on structural information on pages representing said web service, said structure information having a hypertext mark-up language (HTML) format.

13. The method of claim 6, wherein said prioritizing is based on structural information on pages representing said web service, said structure information having other than a hypertext mark-up language (HTML) format.

14. The method of claim 9, further comprising:  
linking split pages such that said user may selectively launch said services that the user has used less than said predetermined number of times previously.

15. The method of claim 1, further comprising:  
creating multiple links at each level of said hierarchy of said Web page such that said user can go between parts used more than said predetermined number of times and parts used less than said predetermined number of times.

16. The method of claim 1, wherein said displaying comprises:

displaying links as pictorial forms that are thumbnail forms of said web page, thereby providing said user with a visual cue as to whether or not said link should be followed.

17. The method of claim 1, further comprising:

bypassing said one of displaying only those objects, on user request, so that said user sees said page as served by a server.

18. The method of claim 1, further comprising:

5 registering, by said user, a browser to be accessed through a proxy server.

19. The method of claim 1, further comprising:

tracking a plurality of different users.

20. The method of claim 1, further comprising:

tracking a plurality of different web services.

10 21. The method of claim 1, further comprising:

specifying, by said user, at least one of a different threshold and a different criteria for identifying a frequent accessing of said objects.

22. The method of claim 21, further comprising:

15 tracking of said frequent accessing by maintaining information and transforming said original page based upon structure links.

23. The method of claim 1, further comprising:

identifying a session of a user with a web service.

24. The method of claim 1, further comprising:

maintaining a repository of user usage of a web service by updating previous visits with new visits based upon at least one of web page structure, user clicks and input, and user customization.

5 25. The method of claim 1, further comprising:

using an extensible markup language (XML)-based schema language for specifying an update to a visit history.

26. The method of claim 1, wherein if a number of visits to a web site is determined to exceed said predetermined number of times or if the user has specified the user's preferences in advance, the next time the user visits the site, the user obtains a version of the site that has been customized to the user's previous visits, such that a browser of the user does not download text and graphics that are not used by the user said predetermined number of times.

27. The method of claim 1, further comprising:

15 registering, by the user, a browser of the user with a customizing service.

28. The method of claim 27, wherein said user specifies, in the browser, visits to which sites should go through the customizing service, such that when the user tries to access one of the registered sites from the browser, a downloaded page is

intercepted by the customizing service and a structural information on the page is examined by the customizing service.

29. The method of claim 1, wherein only links and structures, used by said user said predetermined number of times or specified by said user, are placed on said home page of said website, other pages of said website being available through an indirect link.

30. The method of claim 1, further comprising:

providing an image object on said web page for allowing the user to visit at least a portion of the rest of the classes or the rest of the pages associated with said web page, by said user clicking on said image.

31. The method of claim 30, further comprising:

creating a hyperlink out of an icon corresponding to the image represented by the rest of the classes or the rest of the page, such that said user obtains a thumbnail of the rest of the classes or pages associated with said web page.

32. The method of claim 1, further comprising registering a customization of said user, said registering comprising:

specifying a universal resource locator of the web page and optionally a set of universal resource locator (URL) patterns to indicate link patterns;

specifying a threshold for the customization, for informing after how many  
uses of the web service the customization of the service for the user should  
commence; and

5 automatically introducing into a browser of the user, options for asking the  
browser to go via the customizer service when accessing the URL for the service  
that the user specified.

33. The method of claim 1, further comprising:

invoking, by said user, a web browser;  
10 specifying a universal resource locator (URL);  
determining whether said URL is a registered URL; and  
if the URL is determined to be a registered URL, then the browser visiting  
the page through a customizing proxy server, and if not then the browser visiting the  
site, said browser receiving the page either directly from a server or from the  
15 customizing proxy server and serving the page to the user.

34. The method of claim 1, wherein customizing of said web page comprises:

receiving a universal resource locator (URL) request from a web browser of  
said user;  
sending a request to the web server corresponding to the URL and obtaining  
20 the page;  
comparing with a database of (user, service) pairs whether the URL is a  
service URL registered by the user, and if said URL is registered by said user,

determining whether a number of visits to the web service by the user has exceeded said predetermined number of times;

5 if the predetermined number is exceeded, then accessing an access history of the user for the web service from the database and customizing the web page based upon the access history, to create a modified page, and returning a modified page to the browser;

if the predetermined number is not exceeded, then incrementing an access count by said user to the service and returning the page to the browser; and

10 if said URL matches a pattern within a service URL structure, updating a visit history for the access pattern for the registered web service and returning the page to the user's browser.

35. The method of claim 34, wherein for each web service URL, an extensible mark-up language (XML) document is stored representing a structure of the document.

15 36. The method of claim 31, wherein as the user visits the website repeatedly, the XML document is updated to specify which parts of the page structure were accessed.

37. A method of selectively tracking of web service usage by a user, comprising:  
20 sensing a number of times a user visits a website;  
sensing links for objects and other interactive objects on a home page of the website, accessed by the user; and



displaying only those objects which the user accesses a predetermined number of times.

38. The method of claim 37, further comprising:

sensing classes of objects to which the links and other interactive objects belong.

39. A system for displaying predetermined objects on a web page accessed by a user, comprising:

a sensor for sensing whether a web page has been accessed by said user; and  
a display for displaying one of only those objects of said web page which said user has accessed a predetermined number of times previously, and only those objects of said web page which said user has specified in advance.

40. A system for selectively tracking web service usage by a user, comprising:

means for sensing a number of times a user visits website;  
means for sensing links for objects and other interactive objects on a home page of the website, accessed by the user; and  
a display for displaying only those objects which the user has accessed a predetermined number of times previously.

41. The system of claim 40, further comprising:

means for sensing classes of objects to which the links and the other interactive objects belong.

42. A signal-bearing medium tangibly embodying a program of machine-readable instructions executable by a digital processing apparatus to perform a method of displaying predetermined objects on a web page accessed by a user, said method comprising:

5           one of displaying only those objects of said web page which said user has accessed a predetermined number of times, and displaying only those objects of said web page which said user has specified in advance.

43. A signal-bearing medium tangibly embodying a program of machine-readable instructions executable by a digital processing apparatus to perform a method of  
10           selectively tracking of web service usage by a user, said method comprising:

                  sensing a number of times a user visits a website;

                  sensing links for objects and other interactive objects on a home page of the website, accessed by the user; and

                  displaying only those objects which the user accesses a predetermined  
15           number of times.

44. The medium of claim 43, further comprising:

                  sensing classes of objects to which the links and other interactive objects belong.